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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,668	02/06/2001	Jorg Dauerer	P00.1862	6640

21171 7590 04/30/2004

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EXAMINER

GHEBRETINSAE, TEMESGHEN

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 04/30/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/701,668

Applicant(s)

DAUERER ET AL.

Examiner

Temesghen Ghebretinsae

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 27-36 is/are rejected.
- 7) ☒ Claim(s) 23-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date g.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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### **DETAILED ACTION**

It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The examiner has considered the references listed in the PTO-1449.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-22,27-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rozanski (5,530,926) in view of Heikkinen (WO 95/32558).

Consider claim 20,21,22,27,28,29,30,31,32,33,34,36. Rozanski discloses a method and apparatus for transmitting signals via a radio interface in radio

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communication system which uses a subscriber-separation method for distinguishing signals (see col.2 line 19), the radio station comprising: assigning at least one radio channel for signal transmission between a first radio station and second station (see col. 1, line 47 and col.3, line 34; portable RF receiver and base station); transmitting at least one signal via at least two transmission paths (col.1, line 29, (11,12)); determining and comparing for each transmission path at least one characteristic value, the characteristic value relating to transmission conditions on the radio interface (15,16, col.2, lines 16-29,e.g. C/I, RSSI , and BER ) deriving a control signal based on the comparing step (17) ; and selecting a transmission path based on the control signal (13).

Rozanski fail to disclose transmission path being selected on a periodically changing bases provided that a difference for any characteristic value among the at least two transmission path does not exceed a predetermined threshold. However, Heikkinen discloses a method for improving connection quality in cellular radio system in which the antenna to be used is changed in such manner that successive frames are transmitted via different antennas (34a, 34b, 34c). (When the measured quality of both antennas are the same). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit successive data via different antennas (11,12 of Rozanski) when both antennas (11,12) have the same quality to improve transmission quality. Heikkinen also discloses transmitting at least two or more successive signal with a time slot being changed. (See claim 2, Heikkinen). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was

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made to transmit at least two successive signal with a time slot or frequency band being changed in order to improve transmission quality.

As for claim 21, see above explanation. Rozanski has at least two antenna devices (11,12); determining step (15,16) for determining characteristic values from the at least one signal received by the at least two antenna devices and a control signal to actuate a switching device (17).

As for claim for claim 22, see Rosanski figs. 1,2, separating in time at least one signal and transmitting at least one signal via one transmission path.

As for claim 27-29, see Rozanski col.2, lines, 16-19 and fig.2.

As for claim 32-33, the characteristic value is at least one of bit error rate. See Rozanski col. 2, lines 26-29.

As for claim 34 and 36. See above explanation of claims 20. A radio station comprising: at least one antenna device for at least one receiving and sending at least one signal, the least one signal being transmitted via at least two antennas (11,12); an evaluation device (15,16); a control device (17) and a switching device (13).

As for claim 35, it is obvious to a person skilled in the art to also integrate into base station measures used in the mobile station to improve reception. The subject matter of claim 35 is therefore considered obvious.

### ***Allowable Subject Matter***

Claims 23-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: non of the cited prior art of record disclose a method according claim 22 further comprising: sending the at least one signal that is separated in time, in each case, by one antenna device of the first radio station and receiving the at least one signal that is separated in time by the second radio station; determining characteristic values from a received signal; and utilizing the control signal to actuate a switching device as claimed in claim 23.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Faerber (6,128,513 and Oestreich (6,445,910) are cited as related to the subject matters of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 703-305-4777. The examiner can normally be reached on Monday-Friday from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour, can be reached on 703-304-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.G.



TEMESGHEW GHEBRETINSAE  
PRIMARY EXAMINER